Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	32	sabatini NEAR david	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 16:51
L2	780812	array$5 microarray$5	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 16:52
L3	968	(array$5 microarray$5) SAME eukaryotic	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 16:52
L4	489	(((array$5 microarray$5) SAME eukaryotic WITH cell) and DNA) and (transduc$4 OR transfect$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 16:52
L5	117	((((array$5 microarray$5) SAME eukaryotic WITH cell) and DNA) and (transduc$4 OR transfect$4)) and gelatin	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 16:52
L6	44	435/455.ccls. and ((((array$5 microarray$5) SAME eukaryotic WITH cell) and DNA) and (transduc$4 OR transfect$4))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 16:53

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     (FILE 'HOME' ENTERED AT 16:55:29 ON 15 APR 2005)

     FILE 'MEDLINE, CANCERLIT, CAPLUS, SCISEARCH' ENTERED AT 16:56:08 ON 15
     APR 2005
L1        67103 S (EUKARYOTIC OR CELL) (L) (MICRO-ARRAY OR MICROARRAY OR ARRAY)
L2         2808 S L1 AND TRANSFECT?
L3          742 S L2 AND PY<=1999
L4          300 DUP REM L3 (442 DUPLICATES REMOVED)
L5            6 S L4 AND DENSITY
              E SABATINI DAVID?/AU
L6           51 S E1
L7           10 S L6 AND L1
L8            7 DUP REM L7 (3 DUPLICATES REMOVED)
L9            7 SORT L8 PY

=> d an ti so au ab pi l9 1-7

L9   ANSWER 1 OF 7  CAPLUS  COPYRIGHT 2005 ACS on STN
AN   2001:355606  CAPLUS
DN   136:49013
TI   Microarrays of cells expressing defined cDNAs
SO   Nature (London, United Kingdom) (2001), 411(6833), 107-110
     CODEN: NATUAS; ISSN: 0028-0836
AU   Zlauddin, Junald; Sabatini, David M.
AB   Genome and expressed sequence tag projects are rapidly cataloging and
     cloning the genes of higher organisms, including humans.  An emerging
     challenge is to rapidly uncover the functions of genes and to identify
     gene products with desired properties.  We have developed a
     microarray-driven gene expression system for the functional anal.
     of many gene products in parallel.  Mammalian cells are cultured
     on a glass slide printed in defined locations with different DNAs.
     Cells growing on the printed areas take up the DNA, creating spots
     of localized transfection within a lawn of non-transfected cells
     .  By printing sets of complementary DNAs cloned in expression vectors, we
     make microarrays whose features are clusters of live
     cells that express a defined cDNA at each location.  Here we
     demonstrate two uses for our approach: as an alternative to protein
     microarrays for the identification of drug targets, and as an
     expression cloning system for the discovery of gene products that alter
     cellular physiol.  By screening transfected cell
     microarrays expressing 192 different cDNAs, we identified proteins
     involved in tyrosine kinase signalling, apoptosis and cell
     adhesion, and with distinct subcellular distributions.

L9   ANSWER 2 OF 7  CAPLUS  COPYRIGHT 2005 ACS on STN
AN   2001:208439  CAPLUS
DN   134:247914
TI   Reverse transfection method for constructing microarrays
     suitable for rapid high throughput screening of gene function in mammalian
     cells
SO   PCT Int. Appl., 43 pp.
     CODEN: PIXXD2
IN   Sabatini, David M.
AB   Described herein is a strategy for the high throughput anal. of gene
     function in mammalian cells.  A method to create transfected
     cell microarrays that are suitable for rapidly screening
     large sets of cDNAs or DNA constructs for those encoding desired products
     or for causing cellular phenotypes of interest is described.  Using a
     slide printed with sets of cDNAs in expression vectors, a living
     microarray of cell clusters expressing the gene products
     has been generated.  The cell clusters can be screened for any
     property detectable on a surface and the identity of the responsible
     cDNA(s) determined form the coordinates of the cell cluster with a
     phenotype of interest.  Accordingly, the present invention relates to a
     method, referred to as a reverse transfection method, in which a defined
     nucleic acid (a nucleic acid of known sequence or source), also referred
     to as a nucleic acid of interest or a nucleic acid to be introduced into
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cells, is introduced into **cells** in defined areas of a lawn of **eukaryotic cells**, in which it will be expressed or will itself have an effect on or interact with a cellular component or function. In the method, a mixture, defined below, comprising DNA of interest (such as cDNA or genomic DNA incorporated in an expression vector) and a carrier protein is deposited (e.g., spotted or placed in small defined areas) onto a surface (e.g., a slide or other flat surface, such as the bottoms of wells in a multi-welled plate) in defined, discrete (distinct) locations and allowed to dry, with the result that the DNA-containing mixture is affixed to the surface in defined discrete locations. **Eukaryotic cells**, such as mammalian **cells** (e.g., human, monkey, canine, feline, bovine, or murine **cells**), bacterial, insect or plant **cells**, are plated (placed) onto the surface bearing the DNA-containing mixture in sufficient d. and under appropriate conditions for introduction/entry of the DNA into the **eukaryotic cells** and expression of the DNA or its interaction with cellular components. In one embodiment of the method, referred to as a "gelatin-DNA" embodiment, the DNA-containing mixture, referred to herein as a gelatin-DNA mixture, comprises DNA (e.g., DNA in an expression vector) and gelatin, which is present in an appropriate solvent, such as water or double deionized water. A second embodiment of the method is referred to as a "lipid -DNA" embodiment. In this embodiment, a DNA-containing mixture (referred to herein as a lipid-DNA mixture) which comprises DNA (e.g., DNA in an expression vector); a carrier protein (e.g., gelatin); a sugar, such as sucrose; a buffer that facilitates DNA condensation and an appropriate lipid-based transfection reagent is spotted onto a surface, such as a slide, thus producing a surface bearing the lipid-DNA mixture in defined locations. Also the subject of this invention are **arrays**, including **microarrays**, of defined DNAs spotted onto (affixed to) a surface and **array** : including **microarrays** of reverse transfected **cells** spotted to (affixed to) a surface by the method described herein.

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001020015	A1	20010322	WO 2000-US25457	20000918
	WO 2001020015	C2	20021003		
	W: CA, JP				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	CA 2383423	AA	20010322	CA 2000-2383423	20000918
	EP 1218529	A1	20020703	EP 2000-963550	20000918
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
	JP 2003509060	T2	20030311	JP 2001-523786	20000918
	US 6544790	B1	20030408	US 2000-664297	20000918
	US 2002006664	A1	20020117	US 2001-817003	20010322
	CA 2440378	AA	20021003	CA 2002-2440378	20020322
	WO 2002077264	A2	20021003	WO 2002-US9265	20020322
	WO 2002077264	A3	20030220		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	EP 1379642	A2	20040114	EP 2002-725351	20020322
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2004530426	T2	20041007	JP 2002-575306	20020322
	US 2003228694	A1	20031211	US 2003-379130	20030304
	US 2003203486	A1	20031030	US 2003-403720	20030328
	US 2003228601	A1	20031211	US 2003-403630	20030328

L9 ANSWER 3 OF 7 MEDLINE on STN
AN 2003039648 MEDLINE
TI Applications of transfected **cell microarrays** in

high-throughput drug discovery.
SO Drug discovery today, (2002 Sep 15) 7 (18 Suppl) S113-8. Ref: 25
Journal code: 9604391. ISSN: 1359-6446.
AU Bailey Steve N; Wu Randy Z; **Sabatini David M**
AB DNA **microarrays** and, more recently, protein **microarrays**
, have become important tools for high-throughput genomic and proteomic studies. Transfected **cell microarrays** are a complementary technique in which **array** features comprise clusters of **cells** overexpressing defined cDNAs. Complementary DNAs cloned in expression vectors are printed on microscope slides, which become living **arrays** after the addition of a lipid transfection reagent and adherent mammalian **cells**. This article discusses two potential uses of **cell microarrays** in drug discovery: as a method of screening for gene products involved in biological processes of pharmaceutical interest and as in situ protein **microarrays** for the development and assessment of leads.

L9 ANSWER 4 OF 7 MEDLINE on STN
AN 2002681327 MEDLINE
TI **Cell**-biological applications of transfected-**cell microarrays**.
SO Trends in cell biology, (2002 Oct) 12 (10) 485-8. Ref: 17
Journal code: 9200566. ISSN: 0962-8924.
AU Wu Randy Z; Bailey Steve N; **Sabatini David M**
AB **Cell microarrays** are a recent addition to the set of tools available for functional genomic studies. Each **cell microarray** is a slide with thousands of **cell** clusters that are each transfected with a defined DNA, which directs either the overproduction or the inhibition of a particular gene product. By using a range of detection assays, the phenotypic consequences of perturbing each gene in mammalian **cells** can be probed in a systematic, high-throughput fashion. Combining well-established methods for cellular investigation with the miniaturization and multiplexing capabilities of **microarrays**, **cell arrays** are a versatile tool that can be useful in many **cell**-biological applications.

L9 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:118509 CAPLUS
DN 138:133525
TI Small molecule microarrays
SO U.S. Pat. Appl. Publ., 24 pp.
CODEN: USXXCO
IN **Sabatini, David M.**; Stockwell, Brent R.
AB Small mol. **arrays**, particularly small mol. **microarrays**
, and methods of identifying a small mol. based on observing the effect of a small mol. on an observable characteristic of a biol. sample or test element, such as a **cell**, protein, **cell** lysate, tissue slice or small organism.

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2003032203	A1	20030213	US 2002-189336	20020710
WO 2003056293	A2	20030710	WO 2002-US21972	20020710
WO 2003056293	A3	20031030	-	

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

L9 ANSWER 6 OF 7 MEDLINE on STN
AN 2004578697 MEDLINE
TI **Microarrays** of small molecules embedded in biodegradable polymers for use in mammalian **cell**-based screens.
SO Proceedings of the National Academy of Sciences of the United States of America, (2004 Nov 16) 101 (46) 16144-9. Electronic Publication:

2004-11-08.
Journal code: 7505876. ISSN: 0027-8424.

AU Bailey Steve N; **Sabatini David M**; Stockwell Brent R

AB We developed a **microarray**-based system for screening small molecules in mammalian **cells**. This system is compatible with image-based screens and requires fewer than 100 **cells** per compound. Each compound is impregnated in a 200-microm-diameter disc composed of biodegradable poly-(D),(L)-lactide/glycolide copolymer. **Cells** are seeded on top of these discs, and compounds slowly diffuse out, affecting proximal **cells**. In contrast with microtiter-based screening, this system does not involve the use of wells or walls between each compound-treated group of **cells**. We demonstrate detection of the effects of a single compound in a large **microarray**, that diverse compounds can be released in this format, and that extended release over several days is feasible. We performed a small synthetic lethal screen and identified a compound (macbecin II) that has reduced activity in **cells** with RNA interference-mediated decrease in the expression of tuberous sclerosis 2. Thus, we have developed a **microarray**-based screening system for testing the effects of small molecules on mammalian **cells** by using an imaging-based readout. This method will be useful to those performing small-molecule screens to discover new chemical tools and potential therapeutic agents.

L9 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2005:245290 CAPLUS

TI RNAi living-**cell microarrays** for loss-of-function screens in Drosophila melanogaster **cells**

SO Nature Methods (2004), 1(2), 127-132
CODEN: NMAEA3; ISSN: 1548-7091

AU Wheeler, Douglas B.; Bailey, Steve N.; Guertin, David A.; Carpenter, Anne E.; Higgins, Caitlin O.; **Sabatini, David M.**

AB RNA interference (RNAi)-mediated loss-of-function screening in Drosophila melanogaster tissue culture **cells** is a powerful method for identifying the genes underlying **cell** biol. functions and for annotating the fly genome. Here we describe the development of living-**cell microarrays** for screening large collections of RNAi-inducing double-stranded RNAs (dsRNAs) in Drosophila **cells**. The features of the **microarrays** consist of clusters of **cells** 200 μm in diameter, each with an RNAi-mediated depletion of a specific gene product. Because of the small size of the features, thousands of distinct dsRNAs can be screened on a single chip. The **microarrays** are suitable for quant. and high-content cellular phenotyping and, in combination screens, for the identification of genetic suppressors, enhancers and synthetic lethal interactions. We used a prototype **cell microarray** with 384 different dsRNAs to identify previously unknown genes that affect **cell** proliferation and morphol., and, in a combination screen, that regulate dAkt/dPKB phosphorylation in the absence of dPTEN expression.